

1997:26492 CAPLUS

DN 126:46367

TI Process and articles for producing secondary metabolites of viable plant cells immobilized in a porous matrix

IN Cappelletti, Elsa Mariella; Carturan, Giovanni; Piovan, Anna

PA C.T.S. S.A.S. Di Dal Monte Renzo and C., Italy; Cappelletti, Elsa Mariella; Carturan, Giovanni; Piovan, Anna

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9636703	A1	19961121	WO 1995-IT83	19950518
	W: AU, BR, CA, CN, CZ, FI, HU, JP, KE, KR, MG, MX, NO, NZ, PL, RO, RU, SI, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2219491	AA	19961121	CA 1995-2219491	19950518
	AU 9525740	A1	19961129	AU 1995-25740	19950518
	EP 827535	A1	19980311	EP 1995-920202	19950518
	EP 827535	B1	20020731		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI				
	JP 11505120	T2	19990518	JP 1995-534684	19950518
	AT 221572	E	20020815	AT 1995-920202	19950518
	IL 118220	A1	20000716	IL 1996-118220	19960510
	US 5998162	A	19991207	US 1997-952104	19971117
PRAI	CA 1995-2219491	A	19950518		
	WO 1995-IT83	W	19950518		

AB A process for producing secondary **metabolites** of viable **plant** cells, includes the steps of: (a) prepg. a **support** comprising a substantially uniform and porous matrix of inorg. material having a tensile strength of at least 500 MPa; (b) introducing a culture of viable plant cells into the pores of said matrix; (c) entrapping the plant cells by coating the matrix with a sol or colloidal suspension not interfering with the cell viability; (d) immobilizing the entrapped cells within the matrix with a reactive gas including a carrier gas satd. with volatile SiO₂ or org. modified SiO₂ precursors. The matrix may be a SiO₂ or inorg. oxide matrixes, in which the wt. ratio between cell load and inorg. material ranges between 1 .times. 10⁻⁴ and 1 .times. 10⁻². Thus, an ordinary glass fabric having a fiber d. between 100-700 mg/cm² is dipped in a gelling soln. of Si(OEt)₄ and CH₃SiH(OEt)₂. The wet material is set aside for 15 days, developing a surface deposit of amorphous silica, and the stiff fabric thus obtained may be cut into pieces of desired geometry. A cell suspension culture of *Coronilla vaginalis* or *C. viminalis* may be soaked with sterile disks of the glass fabric for 3 days on a rotary shaker at 90 rpm and 25.degree. prior to treatment of the glass with Si(OEt)₄ and CH₃SiH(OEt)₂. The immobilized cells are not released in soln. over a period of 6 mo and maintain their viability while producing secondary metabolites.

=>

L8 ANSWER 2 OF 4 MEDLINE
AN 87174816 MEDLINE
DN 87174816 PubMed ID: 3562241
TI Immobilization of DNA via oligonucleotides containing an aldehyde or
carboxylic acid group at the 5' terminus.
AU **Kremsky J N**; Wooters J L; Dougherty J P; Meyers R E; Collins M;
Brown E L
SO **NUCLEIC ACIDS RESEARCH**, (1987 Apr 10) 15 (7) 2891-909.
Journal code: 0411011. ISSN: 0305-1048.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198705
ED Entered STN: 19900303
Last Updated on STN: 19900303
Entered Medline: 19870521
AB A general method for the immobilization of DNA through its 5'-end has been
developed. A synthetic oligonucleotide, modified at its 5'-end with an
aldehyde or carboxylic acid, was attached to latex microspheres containing
hydrazide residues. Using T4 polynucleotide ligase and an oligonucleotide
splint, a single stranded 98mer was efficiently joined to the immobilized
synthetic fragment. After impregnation of the latex microspheres with the
fluorescent dye, Nile Red and attachment of an aldehyde 16mer, 5×10^5
bead-DNA conjugates could be detected with a conventional fluorimeter.

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 2002:691546 CAPLUS
DN 137:180726
TI Preparation of gene chip for disease diagnosis of multiple individuals
IN Mao, Yumin; Xie, Yi; Xiao, Zili
PA Bodao Gene Development Co., Ltd., Shanghai, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1314493	A	20010926	CN 2000-114996	20000320
PRAI	CN 2000-114996		20000320		

AB This invention provides an improved design of gene **chip** for disease diagnosis for multiple individuals. The gene **chip** consists of multiple reaction vessels with length, width and depth of 1-3 mm. The **chip** was made of glass, **plastic** and china the cover of the **chip** was coated with the material contg. amino and sulfur group. Several plant genes such as **Arabidopsis** sup gene and rice Usn 5S RNA gene were loaded in each reaction vessel of gene **chip** for monitoring the contamination.

X ~~100~~
Get Translated

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 08:59:59 ON 03 JAN 2003

L1	127 S (HERB OR ARABIDOPSIS) (P) PLASTIC
L2	1 S L1 (P) ALDEHYDE
L3	0 S L1 (P) EPOXIDE
L4	38 S EPOXIDE (P) COUPLE
L5	0 S L4 (P) (DRUG OR MEDICINE)
L6	2 S L4 (P) (ADVANTAG? OR USEFUL?)

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NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	28	Oct 21	EVENTLINE has been reloaded
NEWS	29	Oct 24	BEILSTEIN adds new search fields
NEWS	30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	32	Nov 18	DKILIT has been renamed APOLLIT
NEWS	33	Nov 25	More calculated properties added to REGISTRY
NEWS	34	Dec 02	TIBKAT will be removed from STN
NEWS	35	Dec 04	CSA files on STN
NEWS	36	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	37	Dec 17	TOXCENTER enhanced with additional content
NEWS	38	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	39	Dec 30	ISMEC no longer available
NEWS EXPRESS			December 31 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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=> file medline biosis caplus embase
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ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 08:59:59 ON 03 JAN 2003

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=> s (herb or arabidopsis) (p)plastic
L1 127 (HERB OR ARABIDOPSIS) (P) PLASTIC

=> s l1 (p)aldehyde
L2 1 L1 (P) ALDEHYDE

=> s l1 (p)epoxide
L3 0 L1 (P) EPOXIDE

=> epoxide (p)couple
EPOXIDE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s epoxide (p)couple
L4 38 EPOXIDE (P) COUPLE

=> s l4 (p)(drug or medicine)
L5 0 L4 (P) (DRUG OR MEDICINE)

=> s l4 (p)(advantag? or useful?)
L6 2 L4 (P) (ADVANTAG? OR USEFUL?)

=> d his

(FILE 'HOME' ENTERED AT 08:59:37 ON 03 JAN 2003)

L5 ANSWER 33 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1996:192773 BIOSIS

DOCUMENT NUMBER: PREV199698748902

TITLE: **High throughput screening** for
new drug discovery.

AUTHOR(S): Lin, Bing Bing

CORPORATE SOURCE: Panlabs Taiwan Ltd., 158 Li-Teh Rd., Pei-Tou, Taipei 112
Taiwan

SOURCE: Journal of Food and Drug Analysis, (1995) Vol. 3, No. 4,
pp. 233-241.

ISSN: 1021-9498.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English; Chinese

AB The world pharmaceutical market, which was valued at 247.9 billion in 1994, is forecasted to grow to 342 billion by 1999. **High throughput screening** (HTS) is attracting attention as a novel methodology for new drug discovery. HTS is expected to expand the scale from one thousand to one hundred thousand times the current level by utilizing robots, laboratory information management systems (LIMS), various sources to **screen** natural products (**plant extracts**, secondary microbial metabolites), peptide combinatorial **libraries** and combinatorial organic synthesis (COS) for new therapeutics. Instrumentation, target selection, source material, sample preparation, primary and secondary assays, isolation, purification and structure elucidation are all important for HTS.

L5 ANSWER 23 OF 40 MEDLINE
 ACCESSION NUMBER: 2001073470 MEDLINE
 DOCUMENT NUMBER: 20566315 PubMed ID: 11114096
 TITLE: **High-throughput screening** of
 tocopherols in natural extracts.
 AUTHOR: Perri E; Mazzotti F; Raffaelli A; Sindona G
 SOURCE: JOURNAL OF MASS SPECTROMETRY, (2000 Nov) 35 (11) 1360-1.
 Journal code: 9504818. ISSN: 1076-5174.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Letter
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200101
 ENTRY DATE: Entered STN: 20010322
 Last Updated on STN: 20010322
 Entered Medline: 20010104

L5 ANSWER 25 OF 40 MEDLINE DUPLICATE 11
 ACCESSION NUMBER: 2001144817 MEDLINE
 DOCUMENT NUMBER: 20424121 PubMed ID: 10969720
 TITLE: An in vitro evaluation of human cytochrome P450 3A4
 inhibition by selected commercial **herbal**
extracts and tinctures.
 AUTHOR: Budzinski J W; Foster B C; Vandenhoek S; Arnason J T
 CORPORATE SOURCE: Ottawa-Carleton Institute of Biology, University of Ottawa,
 Ontario, Canada.
 SOURCE: PHYTOMEDICINE, (2000 Jul) 7 (4) 273-82.
 Journal code: 9438794. ISSN: 0944-7113.
 PUB. COUNTRY: GERMANY: Germany, Federal Republic of
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200103
 ENTRY DATE: Entered STN: 20010404
 Last Updated on STN: 20010404
 Entered Medline: 20010315

AB Serial dilutions of 21 commercial ethanolic **herbal**
extracts and tinctures, and 13 related pure plant compounds have
 been analyzed for their in vitro cytochrome P450 3A4 (CYP3A4) inhibitory
 capability via a fluorometric microtitre plate assay. Roughly 75% of the
 commercial products and 50% of the pure compounds showed significant
 inhibition of CYP3A4 metabolite formation. For each herbal product and
 pure compound exhibiting dose-dependency, the inhibition values were used
 to generate median inhibitory concentration (IC50) curves using linear
 regression. Among the commercial extracts, Hydrastis canadensis
 (goldenseal), Hypericum perforatum (St. John's wort), and Uncaria
 tomentosa (cat's claw) had the lowest IC50 values at < 1% full strength,
 followed by Echinacea angustifolia roots, Trifolium pratense (wild
 cherry), Matricaria chamomilla (chamomile), and Glycyrrhiza glabra
 (licorice), which had IC50 values ranging from 1%-2% of full strength.
 Dillapiol, hypericin, and naringenin had the lowest IC50 values among the
 pure plant compounds at < 0.5 mM; dillapiol was the most potent inhibitor
 at 23.3 times the concentration of the positive CYP3A4 inhibitor
 ketoconazole. Utilizing **high-throughput**
screening methodologies for assessing CYP3A4 inhibition by natural
 products has important implications for predicting the likelihood of
 potential herbal-drug interactions, as well as determining candidates for
 further in-depth analyses.